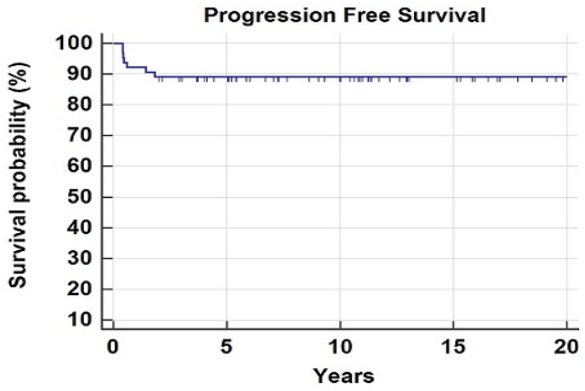
experienced a local recurrence at 5 months and 22 months, respectively (one of these patients developed a second local recurrence 3 years after the first recurrence). One patient developed a lung metastasis 17 months after diagnosis. All recurrent stage II patients were treated and are alive with no evidence of disease (NED).
Of 41 stage III patients, a recurrence was experienced in 3 patients (7%). All of these recurrences were in the lung and were experienced at 4 months, 5 months, and 7 months after diagnosis.
One out of eleven patients (9%) with stage IV disease experienced a recurrence. This was a local recurrence experienced 4 months after diagnosis. None of the 8 patients with stage V disease experienced a recurrence. Risk of progression based on stage is shown in the table below.
The median time to failure was 6 months from diagnosis. Of the eight total recurrences (including 2 local recurrences in a single patient), 6 were salvaged and currently have no evidence of disease. Two patients are alive with active disease.
Progression-free survival was 89%. Sixty three of the 64 patients are still alive, giving an overall survival of 98.4%. The single patient who died had stage IV disease at diagnosis and experienced a recurrence prior to death.

Stage	PFS (%)	OS (%)
I	100	100
II	80	100
III	93	100
IV	91	91
V	100	100



Conclusions: Children with Wilms tumor can have excellent long-term outcomes when managed per NWTS/COG protocols. After 11 years of median follow up, PFS and OS were both excellent at 89% and 98.4%, respectively.

PO-0759

Modern radiotherapy improves survival in paediatric patients with Ewing sarcoma

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Purpose/Objective: To analyze the epidemiological characteristics of paediatric patients with Ewing's Sarcoma (ES) and assess the outcome (overall survival [OS] and disease free survival [DFS]) as well as potential prognostic factors associated with survival after the multidisciplinary treatment.
Materials and Methods: Retrospective study of paediatric patients with ES treated during the period 1979-2014. SPSS 19.0 was used for statistical analysis and Kaplan-Meier's method for the analysis of survival. The potential risk factors were assessed using univariate and multivariate analyses.
Results: During the last 35 years, 102 patients were treated at our Institution. Male patients were 55.8% and the median age was 10.5 years (range 2-19). The pain was the most common symptom at initial presentation. Non-axial location was observed in 62.8% of patients and non-metastatic or multicentric disease in 83.3%. The median time between the onset of symptoms and the date of diagnosis was 3.07 months (range: 0.1- 36.5 months). 68.7% received surgery, 49% radiotherapy (with radical intention, before or after surgery) and 25.5 % hematopoietic stem cell transplantation. The 2 and 5-years OS was 81 % and 57 %, respectively. Two and five years DFS was 68% and 54%, respectively. Local recurrence occurred in 11.8 % and distant relapse in 36.2 % of patients. Secondary malignancies occurred in 5% of patients (2 acute myeloblastic leukemia, 2 myelodysplastic syndromes and one pleomorphic sarcoma). Risk factors for OS observed in the univariate analysis were: an erythrocyte sedimentation rate at diagnosis > median (Median 43; HR: 4.42, p = 0.02), the lack of surgery (HR 1.97, p = 0.024), poor pathological responder (> 10% viable tumor) to induction chemotherapy (HR 2.88, p = 0.012), the use of cobalt units vs. linear accelerators (HR 2.93, p = 0.009) and the response to multidisciplinary treatment (progression versus rest of responses; HR 6.52, p <0.001). In multivariate analysis only the radiotherapy units (HR 4,21, p = 0,030) and the response to treatment (Response vs progression: HR 0,10, p < 0,001) retained statistically significance.
Conclusions: Our results suggest that paediatric patients with ES who have a good response to the multidisciplinary treatment or those treated with linear accelerators vs cobalt units have a lower risk of mortality. Therefore, it seems that technological development has contributed to improve the survival in these patients.

PO-0760

Patterns of stereotactic radiotherapy in pediatrics: results from an international pediatric research consortium

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Purpose/Objective: Use of stereotactic radiotherapy (SRT) is increasingly common practice in radiation therapy for the adult population, but there is little consensus regarding its application in pediatrics. We evaluated clinical patterns of pediatric SRT practice through an international pediatrics consortium comprised of institutions using either photon or proton radiotherapy.
Materials and Methods: Seven international institutions with dedicated pediatric expertise completed a 124-item survey evaluating patterns of SRT use in definitive and palliative radiation therapy for patients ≤21 years old. One institution uses proton SRT for children and all others use photon therapy. Descriptive statistics including frequencies of SRT use and median doses and margins applied with and without SRT by institution and treatment site were calculated.
Results: Across institutions, 71% reported utilizing SRT in pediatrics. Definitions of SRT varied by institution, with providers specifying that a minimum fractional dose ranging from 1.80-6 Gy with delivery in a maximum of 5-33 fractions could be classified as SRT. A median of 11.2 (range 0-13) pediatric patients are treated with SRT of any fractionation regimen annually across institutions, with median 7 (range 0-10) treated with hypofractionated SRT (hSRT). hSRT is used in an average of 1% of brain, 17% of spine, 21% of other bone, and <1% of abdomen or pelvis, head and neck, lung, and liver radiotherapy cases across institutions. Half of the cases treated with hSRT are performed with palliative intent. Ranges of total dose reported for hSRT are 12-30 Gy in 1-5 fractions for brain, 14-40 Gy in 1-5 fractions for spine and other bone, 10-30 Gy in 2-5 fractions for abdomen or pelvis, and 10-50 Gy in 1-5 fractions for lung sites. Although immobilization and simulation procedures vary by treatment site and institution, daily IGRT is utilized in nearly 100% of cases. The median total GTV-PTV margins for SRT vs. non-SRT plans are 0.2 vs.1.4 cm for brain, 0.15 vs. 1.5 cm for spine, 0.35 vs. 1.5 cm for other bone, 0.5 vs. 2 cm for abdomen or pelvis, 0.3 vs. 1.5 cm for head and neck, 0.5 vs. 1.7 cm for lung, and 0.5 vs. 2 cm for liver sites, respectively.
Conclusions: Use of SRT in children was prevalent at all consortium institutions, with variation in site-specific definitions and procedures utilized for this technique. GTV-PTV margins used for SRT are up to 4 times smaller than for non-SRT planning, highlighting the utility of this approach in reducing volume of normal tissue irradiated in the pediatrics population.

Poster: Clinical track: Elderly

PO-0761

Trimodality for bladder preservation in very elderly patients

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Purpose/Objective: Due to population ageing, there is an increased incidence of cancers, particullary for those with a long latency period, such as urothelial bladder carcinoma. Radiochemotherapy, in our area, is indicated as a first curative approach for very elderly patients with good general condition.
Materials and Methods: We assessed the outcomes of 41 consecutively patients at a mean age of 82 years at time of diagnosis, treated with radiotherapy (+/- chemotherapy) following TURBT from February 2010 to January 2014. Patients were T2-3 N0-1 M0 high grade urothelial bladder cancer. All patients had at least a Karnofsky index of 90% and/or a Barthel scale of at least 95. A prior TURB (maximal or flattened) was performed in all patients. Hydronephrosis was present in only 19% of patients, in situ in 20% and a 61% of tumors were <5cm.
All patients received radiotherapy to a median dose of 60Gy (40-68Gy) in a normofractionated schedule, delivered with 3D-CRT and high energy photons. Chemohterapy was delivered to 35 patients in different schedules (concurrent carboplatin 47%, neoadjuvant cisplatin-gemzitabine 25%, and concurrent cisplatin 6%).
Results: At median follow-up 30(5-53) months for survivors, 17 patients have dead. 41% of patients are alive more than 10 months, one third (34%) with no signs of any type of recurrence, and a 64.2% having no signs of local progression, either on cytology, cystoscopy, echography or CT scan. Eleven deaths were disease-related. Overall median survival was 13 months. 1,2 and 3- year overall survival were 73%, 54% and 49% respectively.
By comparing patient, tumor and treatment characteristics of patients living more than 10 months vs dead patients, we only found a tend to statistical difference favouring the presence of a previous superficial tumor in alive patients (31.5% vs 6%, p= 0.07).
Acute tolerance was well, with only one G3 hematuria and a patient with haematologic toxicity chemotherapy-related that both need to interrupt their RT. Main acute toxicity were dysuria (56.1%) followed by pollakiuria (53.7%), and diarrhea (36.6%). A 28.6% of women had also symptoms of